ARCHITECTVRE

Vol. X. SEPTEMBER 15, 1904. No. 57.

ARCHITECTURE, conducted by a Board of Architects in the interests of the profession, is published the fifteenth of every month by FORBES & COMPANY, LTD., 160 Fifth Avenue, New York. Its opinions on technical subjects are either prepared or revised by specialists.

PRICE, mailed flat to any address in the United States or Canada, $5.00 per annum, in advance; to any foreign address, $6.00 per annum in advance.

ADVERTISING RATES upon request. The writing and displaying of advertisements is an art in itself, and the publishers will be pleased to give the Advertiser the benefit of an Expert's experience in this line at no additional expense.

THE PUBLISHERS regret that owing to the demand the supply of back copies of ARCHITECTURE is limited. Prices will be quoted on application. The regular price of each number is 50c.

ENTERED at the New York Post Office as second-class mail matter.

PLATES AND ILLUSTRATIONS.

ARCHITECTS OF TO-DAY,
Mr. R. W. GIBSON, - - - - - - - - - 130
DESIGN FOR A COUNTRY HOUSE, - - - - - - - 132
A. N. Prentice, Architect.
HOTEL, SAN JUAN, Porto Rico,
Perspective and Plan, - - - - - - - - - 134
W. B. Tuthill, Architect; H. B. Woodruff, Associate.
COHOES SAVINGS INSTITUTION,
Perspective and Plans, - - - - - - - - - 136
George Martin Huss, Architect.
THE OLD GREGORY HOUSE, Danbury, Conn., - - - 138 and 139
BEAUX ARTS SCHOLARSHIP COMPETITION. A Colonial Institute.
Elevation and Detail, - - - - - - - - - 140
Plan, - - - - - - - - - - - - 142
W. D. Crowell, Atelier Depradelle.
A HOUSE IN SURREY, England,
Exterior and Plan, - - - - - - - - - 144
Ernest Newton, Architect.
DESIGN FOR AN ENGLISH COUNTRY HOUSE AND GROUNDS, - - - 146
Edmund Fisher, Architect.
HOTEL ASTOR, New York, - - - - - - Plate LXVII
Clinton & Russell, Architects.
LODGE, BUNKER HILL MONUMENT, Charlestown, - - Plate LXVIII
Arthur H. Vinal, Architect.
RESIDENCE, STUART DUNCAN, New York, - - - - Plate LXIX
C. P. H. Gilbert, Architect.
RESIDENCE, R. D. GRAHAM, New York, - - - - Plate LXX
Foster, Gade & Graham, Architects.
ETHICAL CULTURE SOCIETY BUILDING, New York, - - - Plate LXXI
Robert D. Kohn and Carrere & Hastings, Architects.
COUNTRY HOUSE, JOS. HAMMERSHLAG, Elberon, N. J., - Plate LXXII
Harry Allen Jacobs, Architect.
LIBRARY, RESIDENCE, NATHAN PORTER, Montclair, N. J., - Plate LXXIII
Frank E. Wallis, Architect.
LIBRARY, RESIDENCE, GEO. A. MILLER, Montclair, N. J., Plate LXXIV
Frank E. Wallis, Architect.
MANSIONS OF ENGLAND IN THE OLDEN TIME,
Westwood, Worcestershire, - - - - Series I, Plate No. 15
Ockwells, Berks, - - - - - - Series I, Plate No. 16
Joseph Nash.

Copyright, 1903, by FORBES & COMPANY, LTD., 160 Fifth Ave., New York.

W. STANTON ROBINSON
PERSPECTIVES
Postal Telegraph Bldg., 253 BROADWAY
TERMS MODERATE NEW YORK

PROFESSIONAL COMMENT.

BY the death of Mr. Samuel P. Avery the profession of architecture has lost its best friend. Mr. Avery passed away last month, but his memory will be kept fresh in the minds of the profession that he loved so well by the library which he founded in memory of his son, Henry O. Avery, and which is now part of the collection of Columbia University under the name of the Avery Architectural Library. Although Mr. Avery was a layman his interest in architecture was not ephemeral. His son, Henry O. Avery, was an architect of no mean ability, one of the founders of the Architectural League of New York, and since his death, which occurred many years ago, Mr. Samuel P. Avery's interest in all the things that his son held dear has been continuous. In recognition of Mr. Samuel P. Avery's many services to the cause of good architecture he was elected an honorary member of the Architectural League in 1895, and no meeting of the League in recent years has been complete when the face of the white haired old gentleman failed to grace the speaker's table. Not content with the literary treasures which he had placed at the disposal of the profession at Columbia University, he was by far the most generous contributor to the library of the Architectural League as well, and fully seventy-five per cent. of the volumes owned by the League are due to his munificence. The Avery prize which is competed for annually by the members of the League was also his gift, and there has been no public movement in New York City in which the cause of good art or architecture was concerned for the past decade to which Mr. Samuel P. Avery did not actively lend the weight of his influence.

THE question of the design for the new Manhattan Bridge over the East River will not down. The Municipal Art Society of New York has recently issued its Bulletin No. 13 under the caption "Discussion of Manhattan Bridge Plans, With General Reference to Municipal Procedure in Planning Public Works," in which the entire correspondence in relation to this controversy is for the first time made public. This interesting pamphlet ends with the statement that "The Municipal Art Society insists that the only satisfactory solution of the technical questions involved is to be found in an unbiased report by an engineering commission of recognized professional standing".—

Now mark that the questions at issue are purely of an engineering character. No one on either side of the controversy expresses disapproval of the artistic treatment of Mr. Lindenthal's design or gives voice to even the faintest doubt that the architect who collaborated upon the original designs which was approved by the Art Commission would be able to give similarly satisfactory results should the constructive conditions be changed. In a letter addressed to Mayor McClellan under date of June 9th, 1904, Mr. Calvin Tompkins, the President of the Municipal Art Society, states that the original designs upon which Mr. Henry Hornbostel collaborated with ex-Bridge Commissioner Lindenthal "were given a place of honor in the Exhibitions of the Architectural League of 1903 because of the distinct advance shown in bridge designing." Under date of July 12th, 1904, Mr. Lindenthal protests to the Art Commission against the changing of his design, and states that the new bridge scheme would subject the tax-payers to a greater expenditure to the extent of $2,000,000. Commissioner Best acts as an apologist for the new scheme by setting up the claim that the jurisdiction of the Art Commission covers the æsthetic features only—and it is fair to assume that he speaks with authority for his architects, Messrs. Carrere & Hastings, in urging this claim. No more competent advisor in matter of bridge engineering can be found in the United States than Mr. Gustav Lindenthal, who states that "in a bridge it is not possible to separate the architectural from the engineering features;" and so the fight goes on, with little prospect of a settlement.

The engineering question is a local one; it concerns the City of New York alone. The questions of professional ethics involved, however, are national. They will interest the whole architectural profession.

What is the situation as between the architects? Mr. Hornbostel's design stands legally approved by the Art Commission. Through Mr. Lindenthal it is fair to presume that he also protests against the alteration of his design and urges that it be carried out for engineering, architectural and financial reasons. The protestants properly announce the axiomatic principle that the engineering problem cannot be divorced from the architectural design. In the face of those facts, Messrs. Carrere & Hastings accept employment from Commissioner Best and prepare an entirely new scheme. By their silence it is fair to presume that they endorse the astounding proposition that the Municipal Art Commission have no power to criticise the engineering features, and that the architectural portion of the project is a movable commodity which may be taken off or put on without effecting the integrity of the design. The new design is then submitted to the Art Commissioners, who are asked to lend the weight of their approval to the substitution in place of the design prepared by Mr. Hornbostel. Both the members of the firm of Carrere & Hastings are prominent and influential members of the New York Chapter of the American Institute of Architects. They are also fellows of the national body. One of the sections of the Code of Ethics of the New York Chapter of the Institute declares that it is unprofessional "to attempt to supplant a fellow architect after definite steps have been taken towards his employment, unless such employment has been terminated." It may be a question if Mr. Hornbostel's employment has been properly "terminated" within the meaning of this section. It is certainly worth investigating in the face of the protest quoted.

Architects of To-Day.

MR. R. W. GIBSON.

Up to date we have heard of no move in the New York Chapter towards such an investigation. We understand, however, that the matter will not be allowed to rest here. If the New York Chapter takes no action on its own initiative, other chapters are not likely to allow the matter to pass without protest. The professional standing of the members of the firm of Carrere & Hastings is such that their professional brethren have a right to expect that, like Cæsar's wife, they are "above suspicion."

The Brooklyn Chapter of the A. I. A. is one of the few local bodies that continually insists upon its rights in the National Council of this hydra-headed organization. This Chapter is always famous in defending the rights of the profession. The preaching is done in Manhattan, but it is in the City of Churches that men are actually expected to live up to the printed "Code of Ethics." If the New York Chapter makes no move, Brooklyn is apt to be heard from.

THE fireproofing ordinance recently vetoed by Mayor McClellan, which sought to compel the use of fire-resisting or metal-covered wood in all buildings erected in New York City over seventy-five feet in height, has been reintroduced, with the limitations raised to one hundred feet and with most of the objectionable features removed. The Superintendent of Buildings states that he can see no objection to the proposed ordinance, and it is likely to become a law. Opinion is general that one hundred feet is a fair height, and whatever may be the accepted opinion as to the "fireproof" qualities of the so-called fireproof wood, no one doubts that is it a fire-retardant, and that its use makes for better construction and safer housing.

The immediate effect of the passage of this ordinance will be the creation of a new type of building in New York City. Investors always build along the lines of the least legal resistance. Any one familiar with the changes in the New York Building Code can, in most cases, tell at a glance in just what year a given building was erected. The law as at present in force limiting the height of fireproof buildings without specially treated wood to one hundred and fifty feet has caused the average building built within the last few years to be eleven or twelve stories and 149 ft. 11 in. in height. If this ordinance passes the future average type of buildings will be 99 ft. 11 in. high. This may in a measure compensate for the handicap that the extra expense will put upon the revival of building operations. At present there is a decided lack of new housings in certain sections, and the reduction in height of future buildings should cause a greater number of structures to be erected to meet the demand.

SUCCESS in most occupations largely depends on efficient organization, a due relation of one part of the work to the other parts, so that there may be no friction or overlapping. A good deal of the professional architect's work is lacking in this quality. His earlier years are taken up with profitless studies of no practical value to him. His book and class studies bear very indirectly on the practical work he is called upon to undertake; he spends much of his time in drawing and sketching, which are of doubtful value to him, and have little relation to the practice of his vocation. But it does not end here. When he begins to practice he finds the same want of relation, the same obstacles to his action in the requirements of clients, local authorities, and builders. A great deal of his energy and ability is wasted on preliminary duties of not a very remunerative kind; he has to prepare plans and designs to suit various tastes before one is selected. The architect has got the wrong client, or the client the wrong architect, for his particular wants. They do not suit each other. The fact is, as it often happens, the architect does not know his client well enough to design a house for him.

A Philadelphian architect lately gave his experiences, in a paper read at the Ontario Association of Architects at Toronto, on a first interview with his client. The client said first he would like to see the house that the architect would design for him, and then he gave the architect his instructions about the number and size of rooms, &c. The architect replied he could do that, but honestly admitted that, if such a house was built according to bare directions, the result would be disastrous, for he did not know the client well enough. But the client was satisfied, for he began to see and "realize that the house was to be *his* house, not an architect's house merely." The man who comes to an employer and says, "Give your house to me to design; I can refer you to Mr. So-and-So, who was highly satisfied, and do not bother about the design; I will guarantee to suit you at a certain cost, &c.," is not the man to be trusted, for he cannot suit another man's taste or habits of life. The house or building "must fit the man in some way." It is not every architect who has the responsive feeling to find out the kind of house a client needs. A man of common or vulgar tastes will want a very different design to a man of culture.

ACCORDING to the Kansas City Journal, Frank Wallis, the Secretary of the Architectural League of New York, has been telling the following story to his Western friends:

> "Among ignorant persons," said Mr. Wallis, "there is a belief that architects are useless—that a builder is enough of an architect for all practical purposes.
>
> I attended a session of court, not long ago, when an architectural case was being heard. A young architect was put on the stand, and after he had given his testimony, the lawyer for the opposition began to cross-examine him. The questions ran like this:
>
> "You are a builder, I believe?"
>
> "No, an architect."
>
> "Builder or architect, architect or builder, it is much the same thing, isn't it?"
>
> "No, not at all."
>
> "What is the difference?"
>
> The young man explained what the difference was, and the lawyer, with a sneer, said when he had finished:
>
> "Oh, very well. That will do. And now, after your very ingenious distinction without a difference, who was the architect of the Tower of Babel?"
>
> The young man smiled.
>
> "There was none," he answered, "and hence the confusion."

THE Saracenic invasion left its marks in an unmistakable way upon the ecclesiastical art of the North of Italy; and in just as positive a manner the British invasion of Staten Island has made its influence felt in the many charming churches in that mosquito-ridden suburb of New York. It is said, with some semblance of truth, that if a band plays "God Save the King" on Staten Island half of the population will rise, and your Americanized Englishman has carried to this section many of the pleasant fancies which have made rural England synonymous with rural charm. Vine-clad churches with long, low roofs and spreading buttresses, approached through narrow lanes fenced in by high walls or hedges, are characteristics of the Island. It is peculiar development of a minor invasion by an alien race.

HAD the act for the registration of architects not been vetoed by Governor Odell the City of New York might have been relieved of the additional expenditure incident to the reorganization of the Bureau of Buildings. In order to place more safe-guards around building operations in the city and to prevent the recurrence of such catastrophies as the fall of the "Darlington," thirty-six additional inspectors have been appointed at $2,000 a year and six chief inspectors at $4,000—an annual expenditure of $96,000, which might be saved if any legal guarantee existed that buildings *had to be erected under a competent private supervision.*

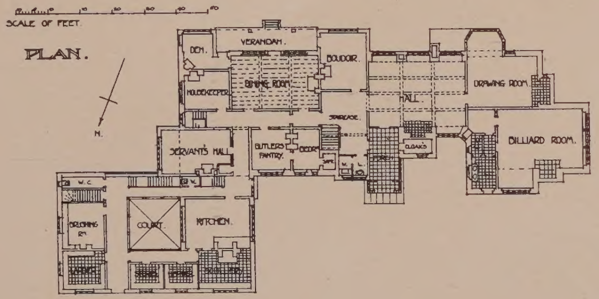
A STORY comes from Louisville, Kentucky, of a contractor who received a contract for a new roof on a church in that city, and who in his haste to get his work done roofed the wrong structure. This has been equalled in New York by a German builder who erected an apartment house on the wrong lot. It was in the suburbs and of a semi-detached character, so the thrifty Teuton thought he would save the surveyor's fee as his house kept well away from the lot line and there was no danger of encroaching upon his neighbor. When he got his roof on he applied to a well-known financial institution for a loan. The bank promptly sent a surveyor who surprised the old builder by telling him that he had built on the wrong side of the street. Fortunately the owner of the lot was a reasonable individual, so he swapped with the builder, who paid several hundred dollars bonus for the privilege. Hereafter he will employ a surveyor.

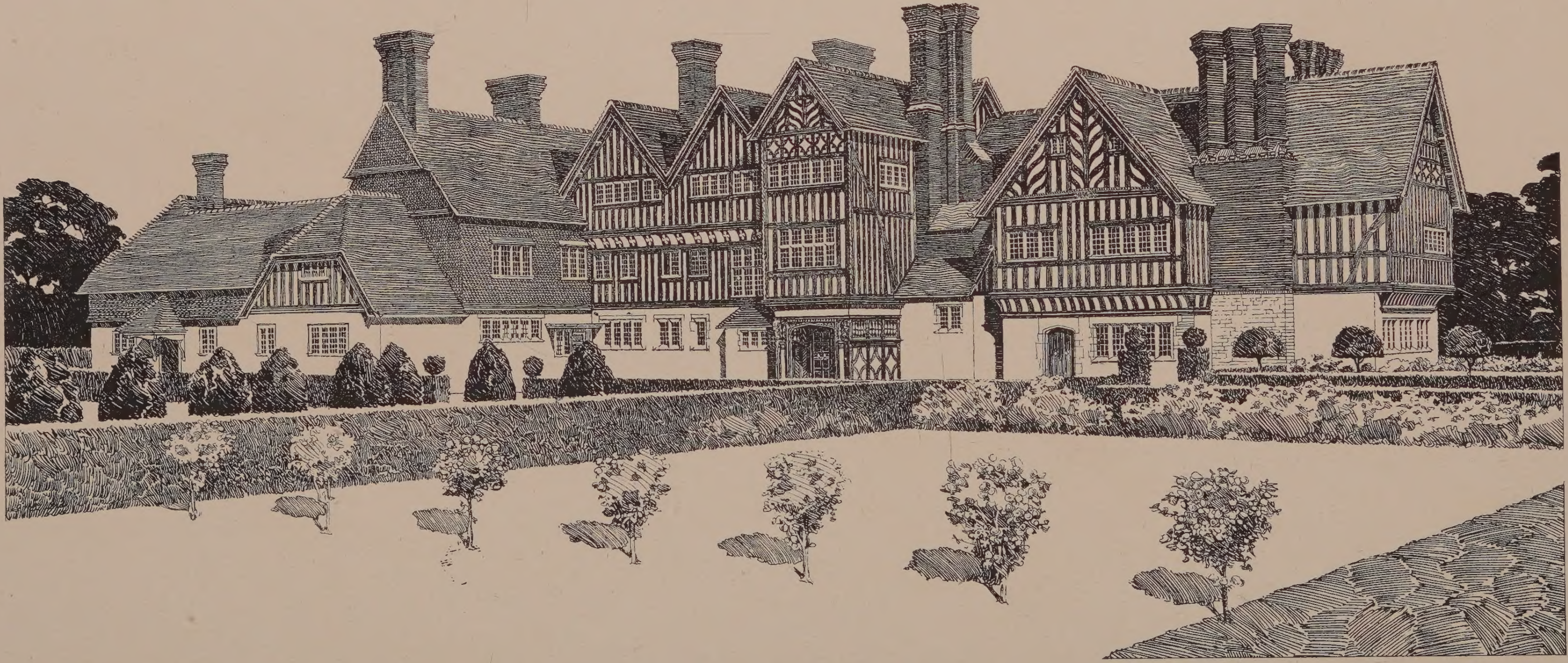
PROFESSIONAL AUTHORITY.

J. H. Hastings.

WHAT are the limits of an architect's authority? How far ought his judgment to prevail? To what extent are his opinions binding on his employer? These are questions exceedingly difficult to answer in a variety of instances. Every problem, indeed, has its own peculiar circumstances, so that these questions are conditioned by them. For example, to take the case of an employer who knows nothing about building or what he wants—the uncultured tradesman who wishes to expend his surplus capital in building—the architect would be justified in exercising his authority, and, if need be, enforcing his opinions. He has been engaged for his professional judgment, skill, and taste, and the employer would be acting contrary to his best interests not to accept the advice offered. It would be like a patient refusing to take the medicine which has been prescribed; such conduct would be regarded as strange and inconceivable. On the other hand, the client may be a man of a very different kind, one who is well conversant with building, can express clearly what he wants, and, in fact, has a decided opinion on his requirements and tastes. To such a client it would be unreasonable on the architect's part to insist on having his own way, or to show a dictatorial spirit. Take a business client; he knows thoroughly his own trade or official requirements, and his opinion

(Continued page 133.)


PLAN.



DESIGN FOR A COUNTRY HOUSE.

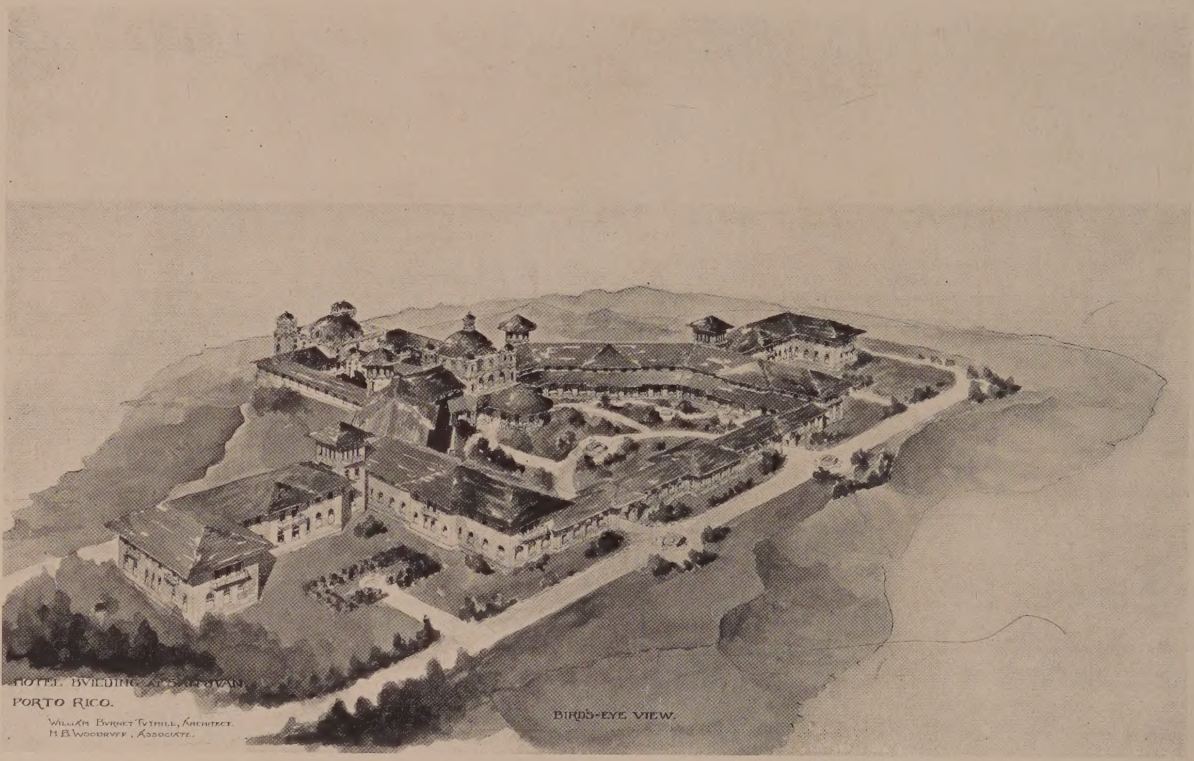
A. N. Prentice, Architect.

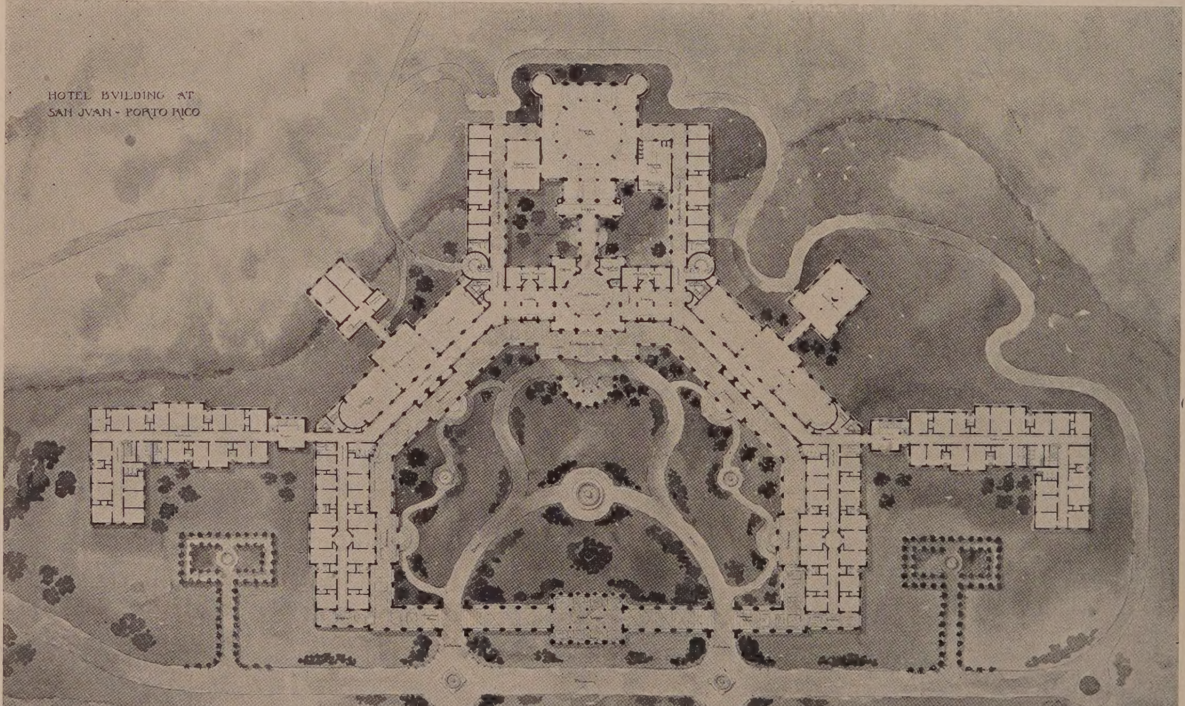
(Continued from page 131.)

on matters of trade is binding upon his professional adviser. He has a perfect right to dictate arrangements and details of building, and the architect does wisely to comply with them so far as they can be accepted without compromising any structural consideration. Here he (the architect) is without doubt the master, and he cannot afford to yield his opinion to anyone. The plans are drawn to suit the client's requirements, and the building proceeds towards completion. The client proposes an alteration to the elevation; he has seen something he likes, and asks the architect to alter his design or introduce a feature, the doing of which would be to destroy the design or spoil the character of the work. Is the architect to accede or to refuse consent to the alteration? Here again it may be argued that the answer will depend on the client's taste and knowledge, if he is artistic himself, and has travelled and seen other buildings so treated. The architect would be quite within his authority not to agree to the proposal if he thought the alteration would be contrary to good architecture or good taste, even if his client was also a person of taste. To an ignorant client he would be right in stoutly protesting against any change of this kind; but to an accomplished man he would be probably justified in reconsidering the point. In short, the attitude of the architect in each case will depend on the knowledge and artistic capabilities of the employer; in each case his authority is more or less conditioned by the class of client, and his good taste. The employer who is quite qualified to tell his architect how he wants his shop, or his offices, or factory planned may be, on the other hand, totally incapacitated from dictating to the architect the proportion of his rooms, their mode of decoration, or pattern of wall paper. He may be able to tell a good plan when he sees one, but quite unable to suggest a design. Then there is a legal as well as a moral view of the question of authority, and these have to be reckoned with. As agent to his employer, an architect can do many things; he has power to act for all purposes within the contract, and the general rules as to the rights and duties of "general agent" apply. The authority he wields may be expressly given or inferred from the conduct of the employer. The latter is bound by his acts within that authority; the architect can, for instance, grant certificates, order extras in certain circumstances, and bind his employer to many things which are within his implied agency. There are many men in the profession who undertake duties they are not competent to carry out; the alteration or restoration of an ancient building, for instance, may require a study of a particular period and a knowledge of detail, for which few are equal; it is a work, perhaps, outside the usual practice. In such a case it becomes his duty to inform his employer, so that he may take the responsibility of employing him. If he does not inform his employer, the latter assumes that he is capable of carrying out the work skilfully. As the architect has to bring to his work a certain amount of skill, and failing this renders himself liable in damages to his employer, it follows that he is not called upon to yield to his client's opinion in matters of design. To do so would be to stultify his position and authority. Legally, therefore, the professional adviser has a clear right to act with authority in all matters pertaining to his profession. But in a profession like architecture the legal rights of authority cannot always be enforced, and herein we see that there is another code of a more or less moral kind which has to be followed. It is not like other professions—law or medicine, for instance, or even engineering, in which precision and scientific accuracy leave little to individual opinion and preference; in these nothing depends on taste or personal liking—all is rigid law or science. But in this, opinion, imagination, and taste exercise a great influence. When a client consults an architect about a house or building, he tells him what he wants, the kind of house, the number of rooms, the cost he can afford, the style he should like, etc. Much depends on approval. The client likes to exercise his taste; but when a man goes to his doctor he has to tell him exactly how he is; he places himself unreservedly in his hands. There is no question of approval, the patient has to submit to the treatment prescribed; there is no liking or disliking in the matter, the medical opinion is final and irrevocable. So the lawyer's advice. But a great deal, therefore, in the architect's work is a matter of opinion and taste which everybody thinks he has a right to assert. Questions of art stand, therefore, on a different basis to those of more exact science; they are in fact governed largely by imagination, by the moral and æsthetic emotions akin to music, poetry, drama, etc. On these subjects, and on theological and political questions, opinions differ, and will always do so. So the architect's authority is not so absolute or supreme as the authority of a doctor or lawyer, and he is obliged to consider the personal factor, the life, habits, and environments, the tastes and fancies of his clients. These all have a tendency to soften down and minimize the authority to reduce its power. Even in such a question as that of plan, the most skilled in the profession are open to correction and suggestion from those who have a practical knowledge of the requirements. It would be absurd for the architect to shut his eyes to any improvement or modification which experience may offer. The history of all great buildings confirms this statement. Many a plan of a house or public building has been improved by such advice; a suggestion carelessly thrown out has resulted in a new idea. Plan arrangement is a gift not exclusively confined to the profession. Some men and women, too, are born clever in arrangements; it is a sort of artistic gift which cannot be imparted to anyone who has no faculty for inventiveness or organization. Is it not the same in the realm of art? No professional architect can be said to have the monopoly; it belongs to lay as well as professional people. In fact, there are men in the profession who have no feeling for art. Their knowledge of it is derived from learning from classes, books, and drawings, but they have no inventive capacity whatever. Here, then, the gift is not confined to the profession, and it is the non-monopolist pleasures derived from the arts that give to them their greatest influence and charm. Many a professional architect has no capacity for his art as an art, and therefore is content to share his authority in matters of design with others. When a man is not strong in any particular thing, he is prone to give way or to be led by other opinions. We find it so when any artistic question or subject is concerned, as, for instance, in decorative work generally. The architect gives himself away to his client; he feels he is not strong enough to defend a given view or opinion. Probably the client is a judge, and may know when a design, pattern, or color suits better than his adviser, in which case there may be no great harm done, but there is misplaced confidence. The architect in yielding to his client's views may commit himself and his client to the criticism and taunts of others.

So it is that the question of professional authority in the case of the architect is beset with peculiar difficulties which do not disturb or compromise the engineer, lawyer or medical practitioner, in whose cases æsthetics and the personal factor of taste do not enter. Whether the architect can exercise his authority in such a manner as to completely contravene the client's intentions will depend on the instruc-

(Continued page 135.)


HOTEL BVILDING AT SAN JVAN
PORTO RICO.
WILLIAM BVRNET TVTHILL, ARCHITECT.
H. B. WOODRVFF, ASSOCIATE.
BIRDS-EYE VIEW.



PERSPECTIVE AND PLAN, HOTEL, SAN JUAN, PORTO RICO. W. B. Tuthill, Architect; H. B. Woodruft, Associate.

(*Continued from page 133.*)

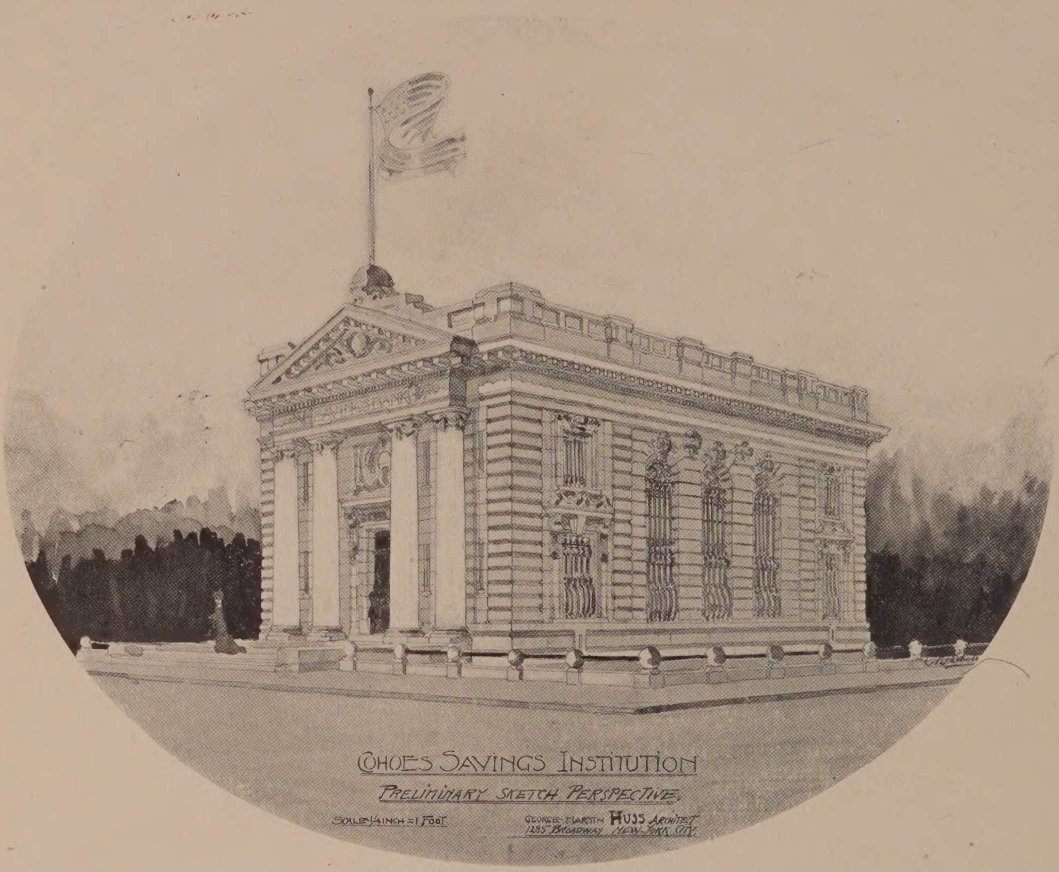
tions. Here is an instance. A gentleman of archæological tastes purchased an old house of an Early Georgian character which he wished to preserve. He desired to make certain interior alterations, and consulted an architect, who prepared the plans. When these were finished and submitted to the client, the latter could not recognize the old house—its chief and interesting features had disappeared. The architect, probably seeing the impossibility of altering the old building, remodelled the whole, altering the elevation so completely that the character of the old was lost in the new. In one instance of a similar kind a gentleman went to an architect and requested him to prepare designs for the alteration and redecoration of his residence. No conditions were imposed, and the architect had *carte blanche.* The old house was in a sort of vernacular Classic and commonplace. The architect completely changed the character of the interior; the old windows of plate-glass, with large squares, gave place to the "Queen Anne" window of small panes, and thick, white bars; the doors and joinery inside were all made to agree with the then prevalent craze: new cornices of the 17th-century type were substituted for the "modernized" plasterer's pattern, the fireplaces had undergone a thorough transformation. Instead of the modern grate, with its tile panel and the marble chimney-piece, the deep and large fireplace, with hob-grate and "dogs," occupied its place. The recesses were arched over with side seats, and the whole room presented the homely and cosy appearance of an old Dutch interior. The walls were painted and papered with dull greens of a peacock blue shade. When the employer returned from his trip he was amazed to see the change, horror-stricken to find his spacious rooms so changed in their character. They were "modern" before, and were bright and showy; now they were dull and quaint, qualities that were not admired by his family and friends. Of course, no radical alteration could be made. The client had to accept what his architect had given him of the latest style of house construction. The architects in both cases were consulted to alter and restore and remodel; they had to exercise their judgment and taste, and for this service they were engaged. If the condition laid down by the client was that the character of the old house or decoration must be preserved, the architect in each case exceeded his instructions, and could be held responsible, or his designs be rejected, if seen before appoval; but if the instructions were not explicit, the architect could not be held liable.

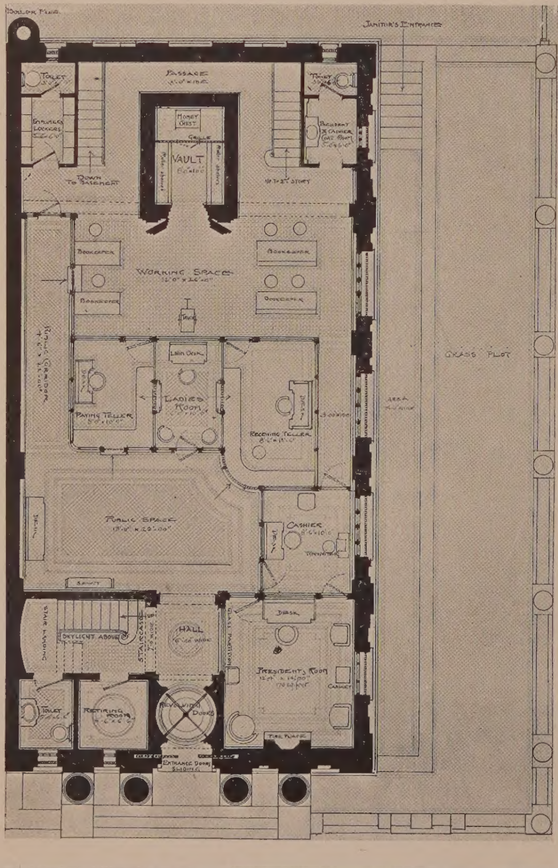
NEGLIGENCE.

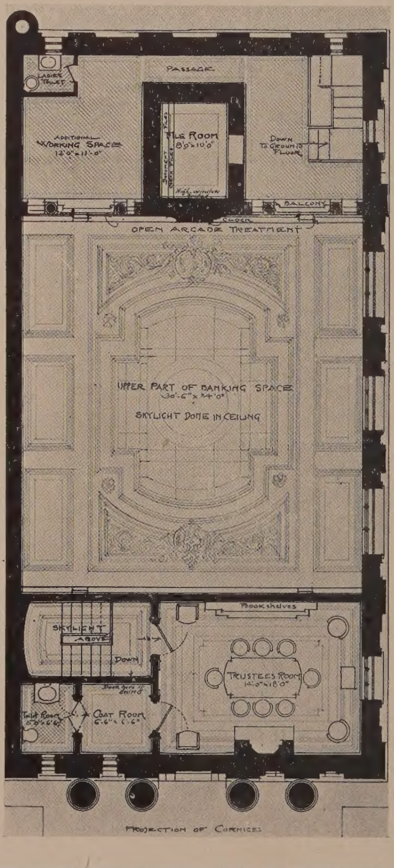
J. S. Gibson.

NEGLIGENCE is a fault often attributed to the professional man; but in a large number of instances the charge is not easily substantiated. What may appear to be negligence in one occupation or business may not be so in another. The charge, too, is not easily proved, especially in the complex duties of the architect's sphere. We have heard of charges being brought against the architect for imperfect drains, for settlements owing to the yielding foundations, for failure of column or girder to carry its load, for collapse of floors and roofs. For some of these things blame may be attributed to him on the ground that ordinary skill and reasonable care were not used. But these words may bear different significations. How is the term "ordinary skill" or "reasonable care" to be defined? It admits of degrees. What might be considered ordinary skill in the planning or construction of a simple building would be extraordinary skill in the case of a complex building, in which the arrangement and construction implied considerable ingenuity or experience. And the same remark may be said to apply to "reasonable care" or "negligence." What would constitute negligence on the part of the workman or foreman could hardly be sufficient to render the architect liable. Of course, we are aware that a distinction ought to be drawn between an error of judgment in design or a structural matter like the size or section of an iron column or girder, and a want of skill in, say, a question of heating or ventilation, or some mechanical installation, which is a subject rather outside the architect's province; or the negligence of not inspecting the foundations of a wall or pier to bear a great concentrated load, and that of overlooking the joints in the drain-pipes. In the first instances the actual safety of a building depends on the area of the column or pier and the reliable nature of the material, and it affects the reputation of the architect as a skilful constructionist, while in the last instances the culpability or responsibility entailed is not so direct, being rather outside the architect's province, or devolving on those who were specially engaged to superintend, as an architect could not possibly find time to be on the building during the laying and jointing of drain-pipes, or in seeing that the foundations were duly excavated and the concrete properly mixed and rammed. The law, it is true, does not always draw these distinctions, but holds generally an architect liable for breaches of duty. It has been pointed out that defective design is a more important thing than neglect. As generally known, in France the architect has been held criminally responsible if a man is killed by the fall of a building due to defective design—a very severe rule if carried out in cases where the accident is due to some neglect of shoring or other precaution. Then the question arises, How can a charge of negligence be established? It cannot be always proved by the architect's personal absence—a very ordinary mode of proving. To take, for example, the foundations of a building. The architect could not be present more than an hour or so on the day of his visit—a very unusual frequency if he visited every day—and if there is a clerk of works there ought to be no absolute necessity why the architect should personally and minutely examine the foundations, or test every load of concrete or the manner in which it is deposited. In such a matter as drain-laying it would not be reasonable to expect the architect to examine personally every pipe before it is covered up, to see that it is properly jointed. Even in brick work it would be expecting too much of the architect to inspect and test every brick that is used in the facing. Personal examination, however necessary, cannot be taken always as the measure of careful supervision. To constitute neglect, a person must prove that ahe architect has not thought about the work, that he has made no provision for it in the drawings or specifications; which are things not easily proved. A person may bring a charge of this kind without knowing the actual facts. It is easy to blame the architect for a defective electric-light installation, or some other trade for which he had certified completion, when a careful investigation would have shown that the architect had used every precaution to insure success. How often a charge is brought against him that he has been negligent in giving a final certificate for a work that was defective or incomplete, or that the certified amount was excessive, as if the client were able to determine the point in such cases. In the ordinary course of a contract, a tradesman may complete his work and ask the architect for a certificate, in the usual way. If the architect complies and certifies for a final amount, without having examined the tradesman's work, or taken the trouble to test its efficiency, he is certainly negligent. The certificate given has to be honored, the employer must pay the amount certi-

(*Continued page 135.*)


SAVINGS BANK
COHOES SAVINGS INSTITUTION
PRELIMINARY SKETCH PERSPECTIVE.
SCALE 1/4 INCH = 1 FOOT
GEORGE MARTIN HUSS ARCHITECT
1285 BROADWAY NEW YORK CITY


BOILER FLUE
JANITOR'S ENTRANCE
TOILET
PASSAGE
TOILET
EMPLOYEES LOCKERS
MONEY CHEST
GRILLE
VAULT
PRESIDENT & CASHIER COAT ROOM
DOWN TO BASEMENT
UP TO 2ND STORY
BOOKKEEPER
BOOKKEEPER
WORKING SPACE 12'0" x 26'0"
BOOKKEEPER
BOOKKEEPER
PUBLIC CORRIDOR
LOAN DESK
PAYING TELLER
LADIES ROOM
RECEIVING TELLER
GRASS PLOT
AREA
PUBLIC SPACE
DESK
CASHIER
TYPEWRITER
STAIR LANDING
SKYLIGHT ABOVE
STAIRCASE
HALL
GLASS PARTITION
DESK
PRESIDENT'S ROOM
CABINET
TOILET
RETIRING ROOM
REVOLVING DOORS
FIRE PLACE
ENTRANCE DOORS SLIDING


PASSAGE
LADIES TOILET
ADDITIONAL WORKING SPACE 12'0" x 11'0"
FILE ROOM 8'0" x 10'0"
DOWN TO GROUND FLOOR
BALCONY
CLOCK
OPEN ARCADE TREATMENT
UPPER PART OF BANKING SPACE 30'-6" x 24'0"
SKYLIGHT DOME IN CEILING
BOOKSHELVES
SKYLIGHT ABOVE
DOWN
TRUSTEES ROOM 14'0" x 18'0"
TOILET ROOM
COAT ROOM
PROJECTION OF CORNICES

(*Continued from page 133*)

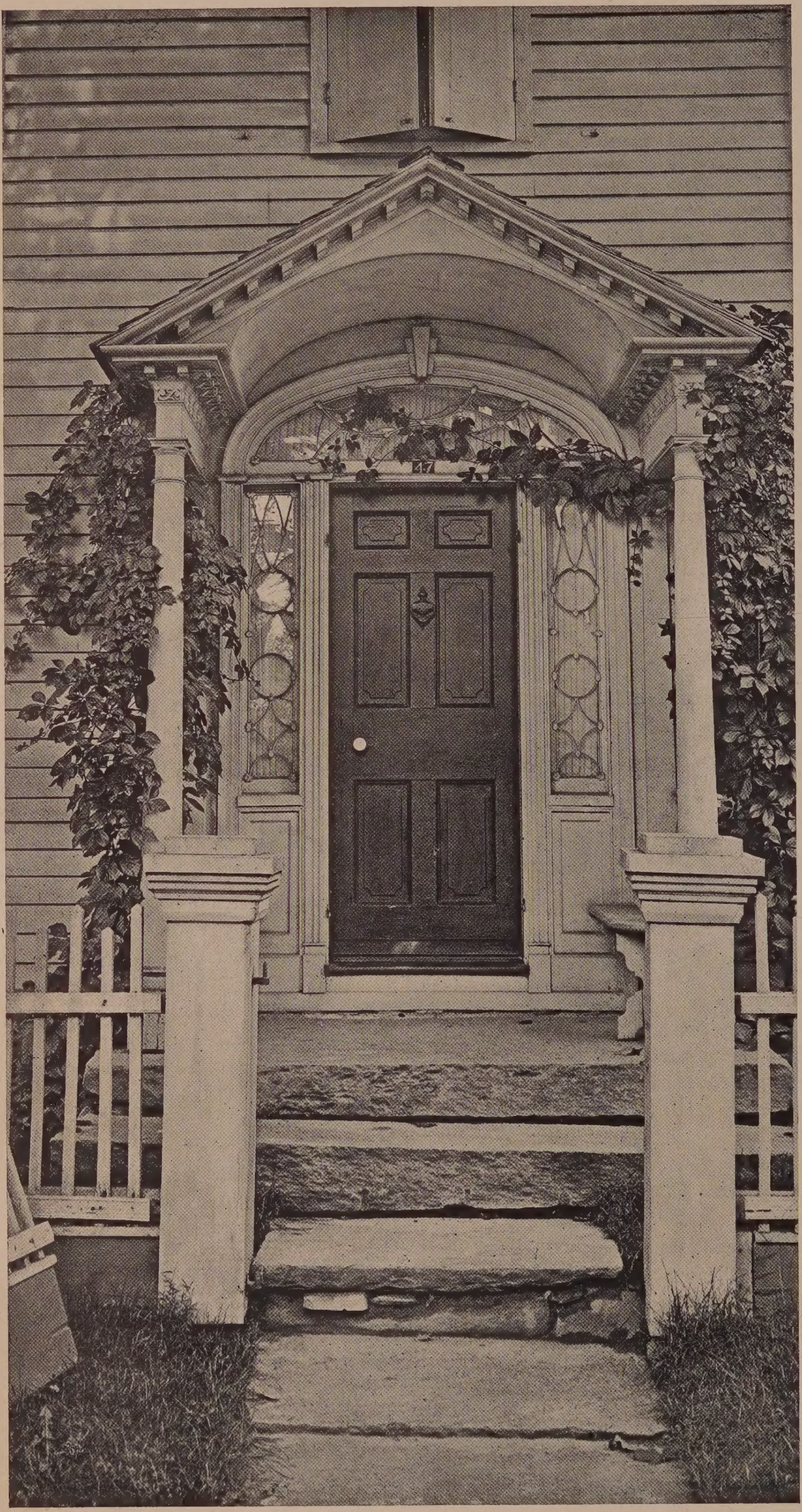
fied ; but he may recover from the architect the sum negligently certified. Yet in such a case it is very difficult to assert that the sum certified is in excess of what is due. Who but the architect is capable of deciding the point ? But suppose the work done is inefficient ; we will suppose the contract is for the heating apparatus and hot water-supply, and that the results are not satisfactory. The architect, before giving his final certificate, has not satisfied himself of the work performed—he has not examined the apparatus, or tested the circulation ; in such a case he has negligently certified, and the employer has a good ground for complaining. If he finds the temperature cannot be obtained, that the radiators do not give out the required heat, or that the hot water circulation is defective, and that he cannot get a hot bath, he naturally looks to his architect for reparation for having certified the full amount. But there are so many qualifying circumstances that every case must be determined on its merits. We have known of instances in which the importunity of the contractor or tradesman to get a certificate is so great that the architect, unadvisedly, grants the request, but obtains a verbal promise from the contractor that he will make good any defect that may be discovered to the architect's satisfaction. The architect does this at his own risk, and on the faith of the contractor ; but experience has proved the error of such a concilitory mood. To expedite the completion of a building the architect may also do things that are at least irregular and unbusinesslike. We know of one case where a tradesman was allowed to undertake to carry out some fittings before any agreement or contract was made, and the architect gave his final certificate on completion. Afterwards the work was found faulty, and the committee blamed their architect for passing the work. It transpired, however, that the architect had used his best efforts to induce the clerk to the board to get the tradesman to sign a contract, and he had, furthermore, written expressly disowning any responsibility should the work not turn out satisfactory.

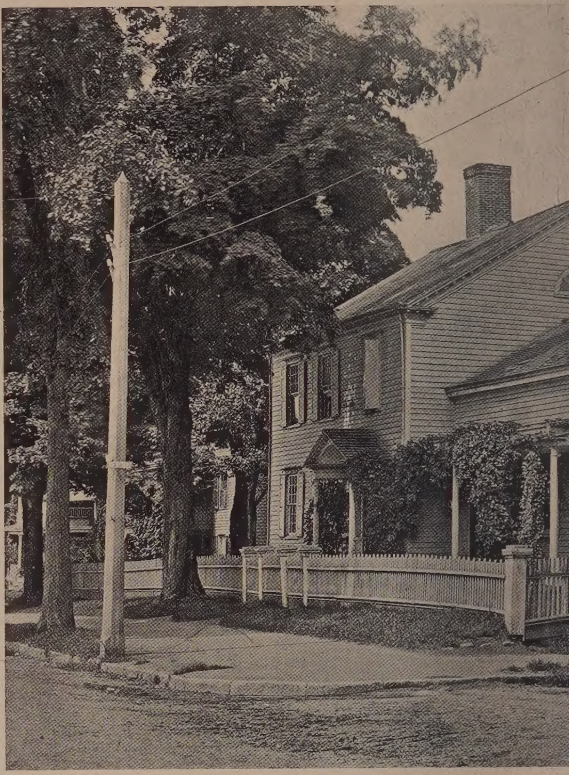
CLIENTS AND ARCHITECTS.

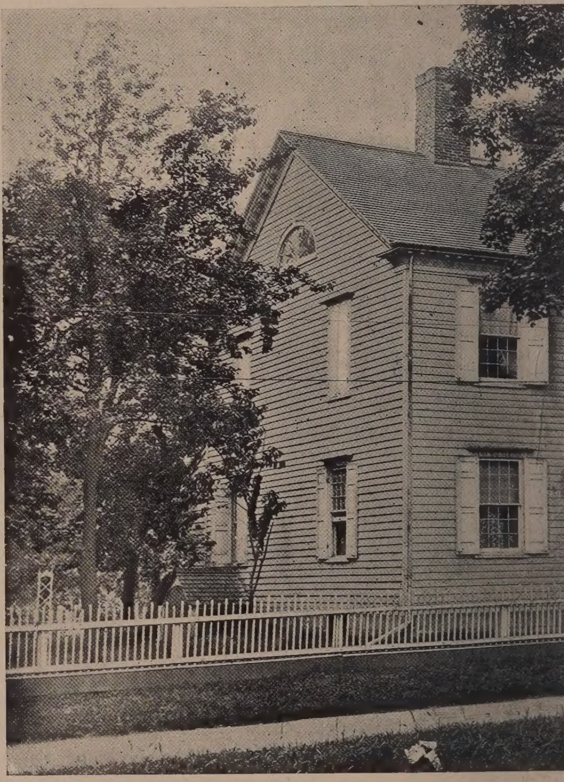
H. C. Foster.

THE practitioner is called upon to consult many tastes, and to discuss various problems of plan and design ; but he is largely controlled by the instructions he receives and the clients he is brought into contact with. These latter are either assertive or compliant. They either are strong and pronounced in their views and opinions, or are, on the other hand, desirous of leaving all to their professional adviser. We have never yet been really able to find out which of these is preferred by the profession. There are many who affect to believe a man who knows his own mind is the best to work for ; others who think the employer should not venture an opinion, and should leave all to the adviser. A great deal may be said on each side. A man with a strong will, who says he must have this and that and the other, that the architect must conform to his instructions, has an upper hand, and the architect must either yield or decline. No doubt such an attitude greatly simplifies the problem ; the professional man knows exactly what he has to do, and he does it. He can, of course, call in question the instructions, and protest against certain views of his client, and after he has done this he cannot do more : no point can be raised afterwards. On the other hand, the compliant client may not turn out so easy to deal with as was expected. Although he places himself in the hands of his architect, he often expects too much ; he expects his architect to interpret his wants, and to know really better than himself what he wants. Not having given any unconditional instructions, he does not commit himself to any particular opinion, and is therefore open to make objections after work is completed. All kinds of fidgety opinions are advanced. One employer brings to the notice of his architect a building of someone else's, which is very much what he desires, or he produces a suggestion from a friend as to the design that would be an improvement, and these ideas and suggestions, given as innuendoes, may really, and often do, trouble the architect a good deal—that is to say, if he wishes to please his client. The architect knows, perhaps, all the time that they are impracticable suggestions ; that the building of Mr. So-and-So which is placed as an example before him cannot be carried out on the site, that the aspect is different, and the conditions not the same. The compliant client is soon unsettled in his mind ; he is continually wavering between different opinions ; he accepts one and then the other, for he has no definite opinion, and this sort of client is, as most architects know, a source of much worry to them. All the professional adviser can do is to be as firm as he can, pooh-pooh any suggestions that he knows to be at variance with the requirements, and talk his client into submission. The firm architect gets his own way ; but a professional man who is too yielding, and concedes this and that point, naturally loses his hold on his client. We are not going to discuss the question which may be raised at this point : How much the merit of a design or a building depends on the influence of the client or committee ; but there is little doubt in many cases the client or promoters do exercise an influence in one direction or another. Thus a parsimonious, strong-willed client who likes to "cut down" expense often spoils his house by curtailments of dimensions and details, and an employer of extravagant tastes may also, by giving a free hand to his architect, encourage the introduction of features of a costly but undesirable character. The able and competent architect will succeed better when he is left alone—left to his own resources, after the necessary instructions are given. Interference and suggestions are generally repugnant and distasteful to him. Like most artists, he resents interference—anything which distracts his mind and destroys the unity of his conception. Every architect who has been in practice knows how extremely irksome it is, after he has prepared a plan which satisfies his mind, to have to hear a number of suggestions on it : how an alteration here and there would improve it ; how much better it would be if the plan had followed another type, and so on. No one more than an architect appreciates the old maxim that "many cooks spoil the broth," when trifling, often ignorant, advice is offered by a client or a committee about a design which may have cost the author many hours of thought and weeks of labor. The more ignorant and assertive the individual, the more audacious is the interferance. No wonder the professional man resents being brought under the lash of these critics. A discussion on the merits of a plan is of value when those who take part in it are competent and practical men. Very often a cultivated client is able to suggest to his architect something which is of value ; if he is a commercial or business man, a manager of, say, a bank or a theatre, a librarian, a medical hospital expert, he may be able to instruct the architect in matters of value in the design about which he knows a good deal. Advice upon points and details of planning in the arrangement of counters and desks, mechanical equipments, laboratory fittings, desks, administration offices, and sick wards are useful to the most experienced architect ; but, of course, there are some faddists who are fond of pushing their own pet schemes, and these are often troublesome as well as presistent ad-

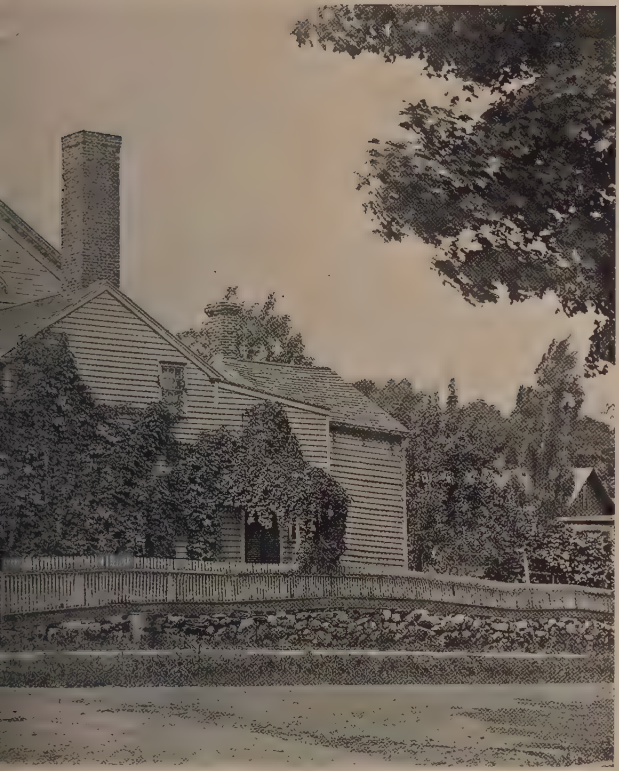
(*Continued page 137*)

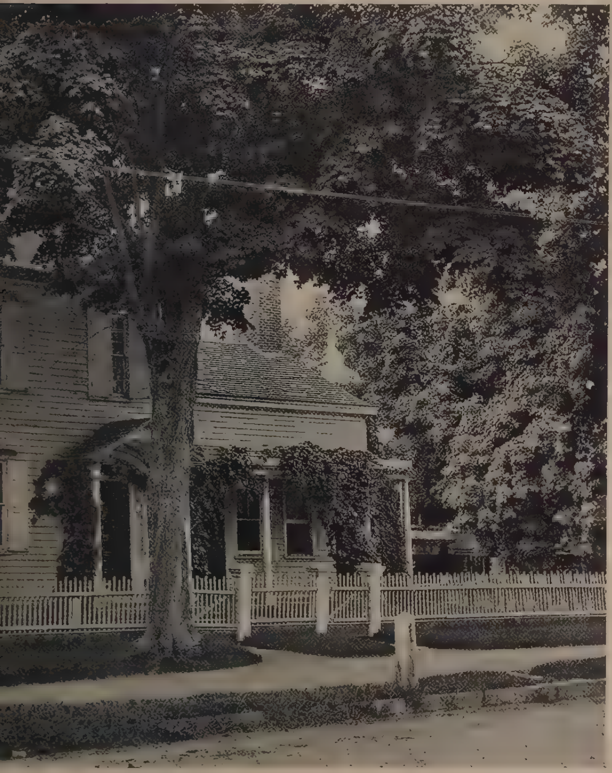


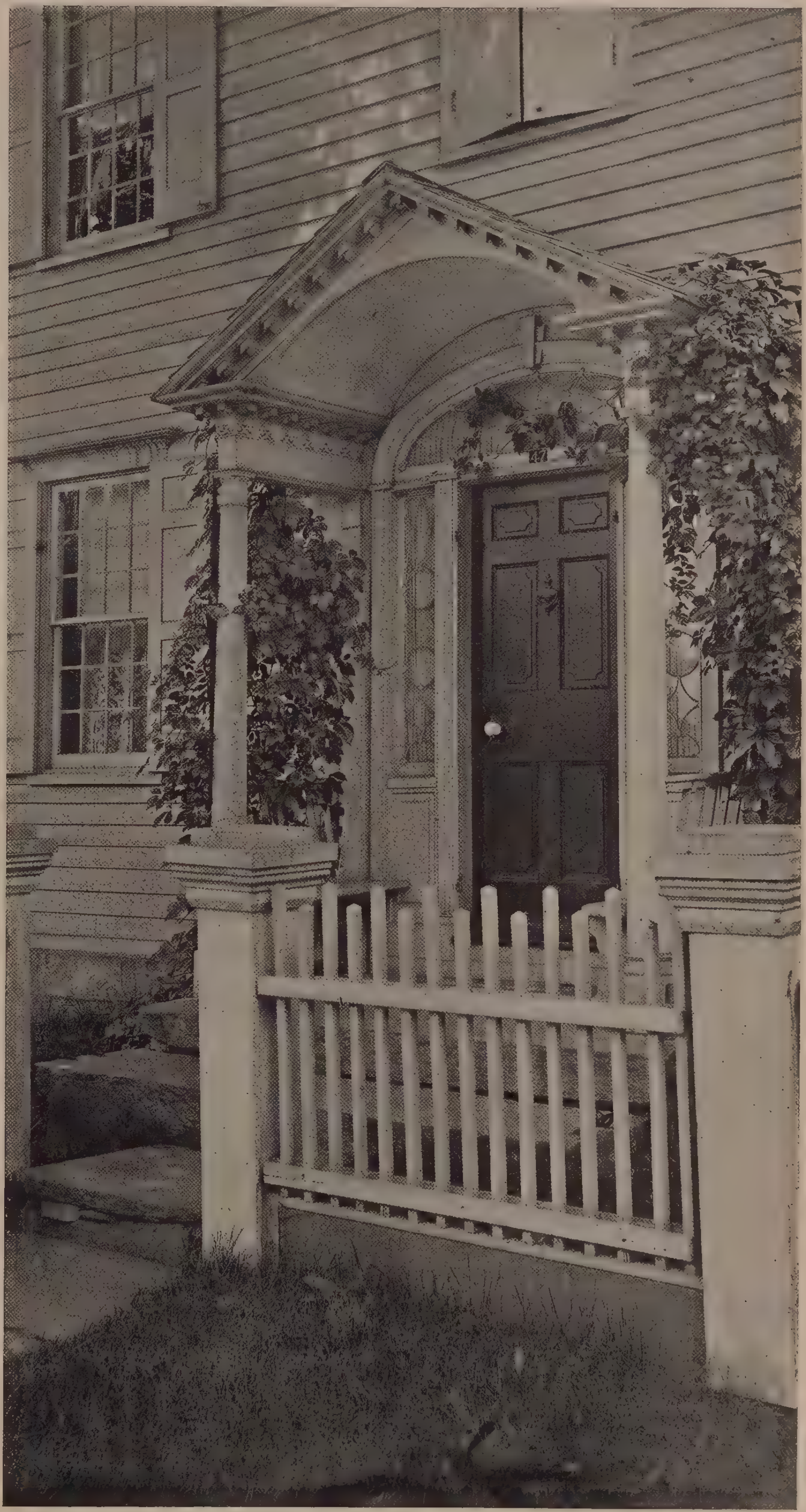




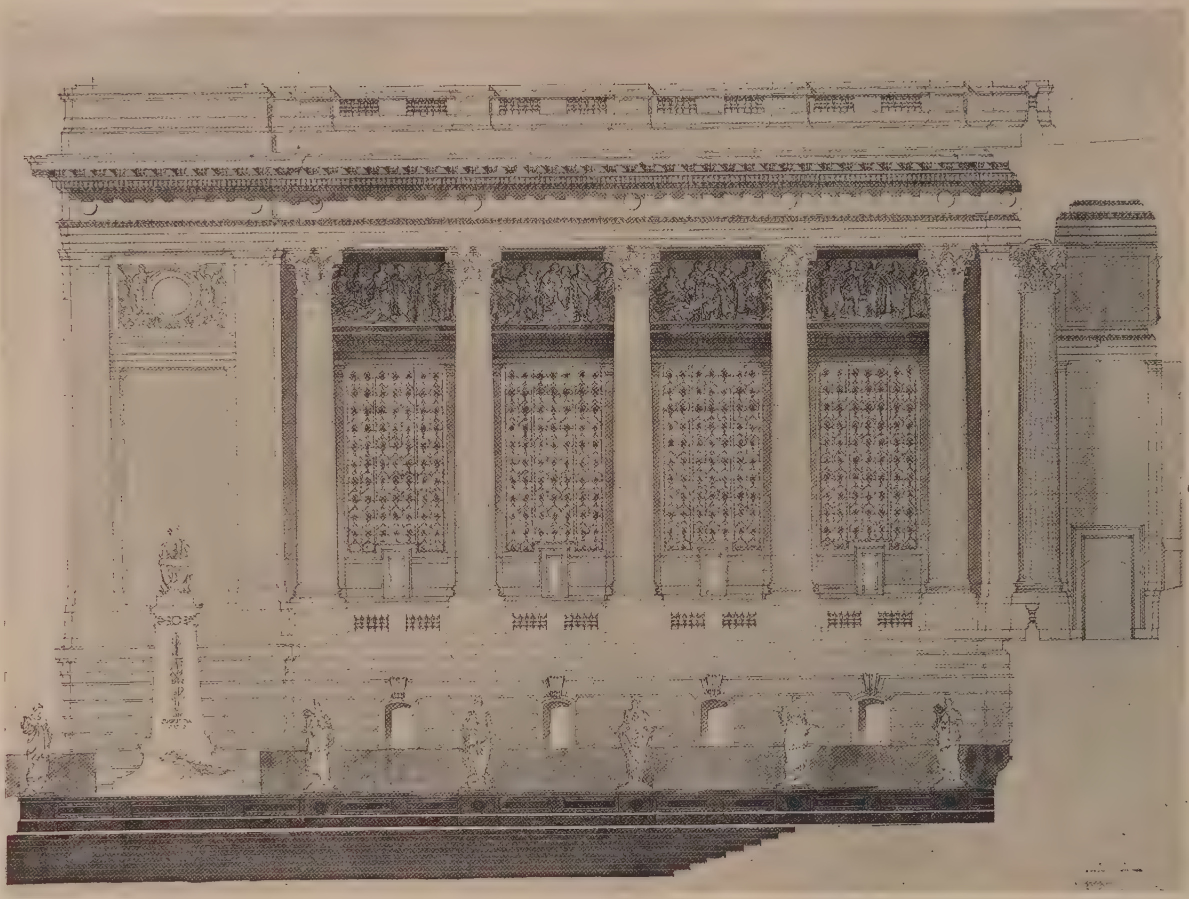
THE OLD GREGORY HOUS

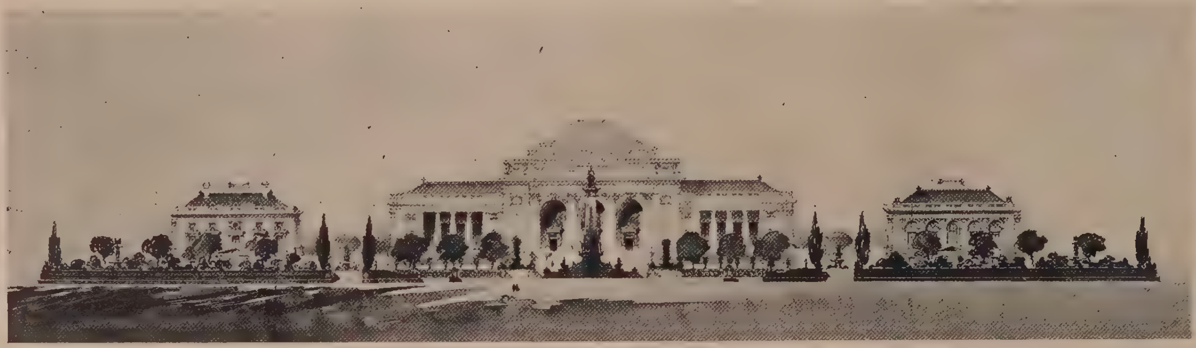






BURY, CONN. BUILT IN 1828.





ELEVATION AND DETAIL, A COLONIAL INSTITUTE. BEAUX ARTS SCHOLARSHIP COMPETITION.
Second Prize, W. D. Crowell, Atelier Depradelle.

(Continued from page 137.)

visers. It is only the skilled and experienced men in the profession who are able to select the wheat from the tares, but young men often fall into the snare. While suggestions are often resented by the skilful designers, there are many in the profession who derive much help and assistance from clients and others who know something of the business. Thus the manager of a bank or insurance office, theatre, or hotel may teach the architect a good deal about the details of his particular building. Each of these men must know best what he wants, as he has to transact business daily. The architect cannot dispense with information of this kind, for the better he understands the function and administration carried on, the more perfect will be his design.

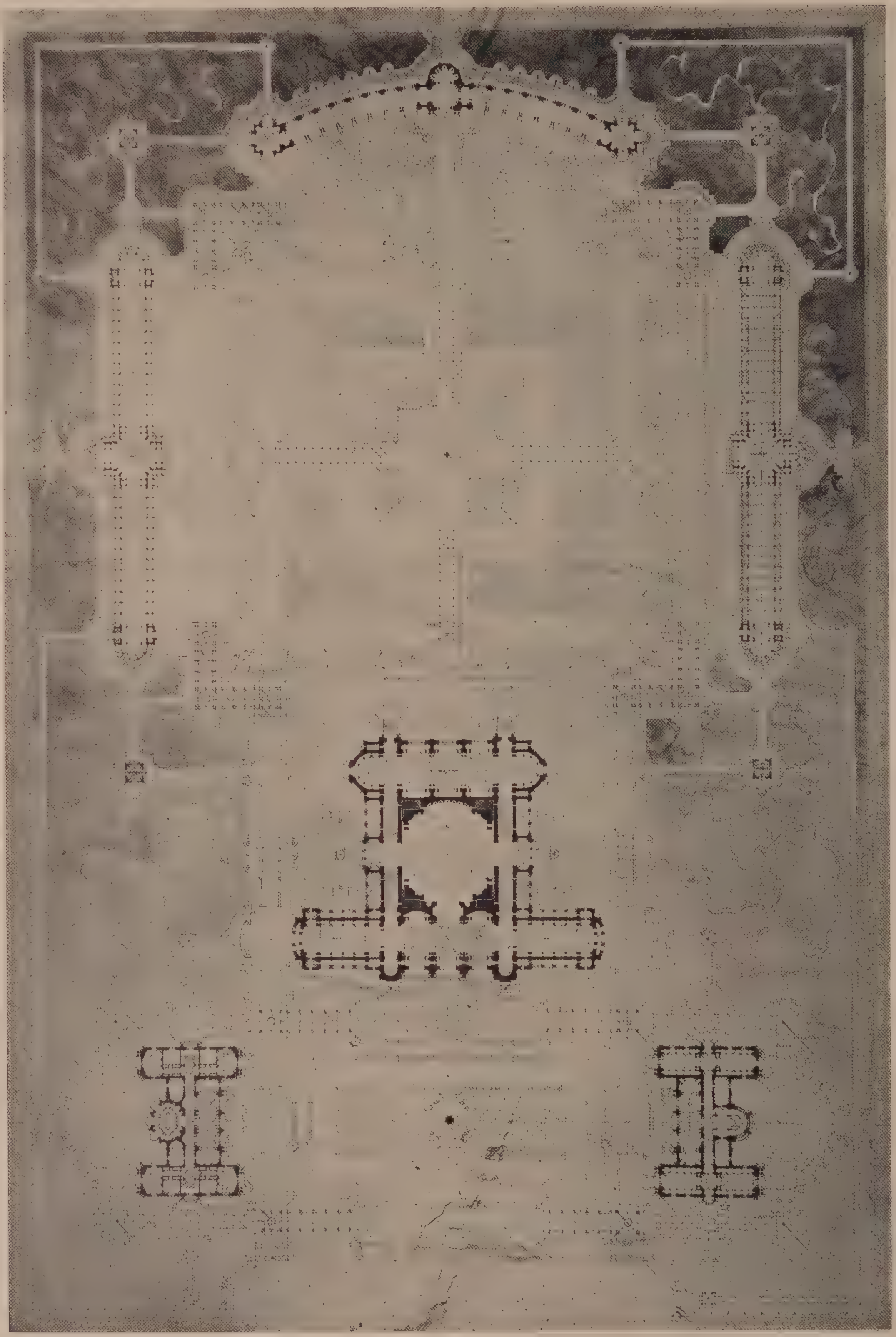
MODERN BUILDING RISKS.

A. D. Russell.

AMONG the subsidiary but no less important duties which devolve on the professional architect in these days are questions involving the health, safety and comfort of those who occupy buildings. We have been in the habit of looking down upon these duties from the higher pedestal of art, in trusting them to circumstances, or to the care of others who occupy a less exalted sphere in building. The builder, the engineer and the plumber have been trusted with a number of duties and responsibilities of this nature appertaining to their several trades. They have been severally looked to as responsible for structural matters, for heating and ventilating systems, for sanitary matters, drainage and plumbing fixtures and the like. These matters have been regarded as pertaining to the execution instead of to the design of buildings, to craftmanship rather than to the architect's province. This is an error, which is now beginning to be perceived. People ask for buildings, not architectural studies merely. They want good and safe construction, the introduction of the latest and most improved systems of drainage, heating, lighting and mechanical appliances as matters which now "bulk largely" in these days of commercial requirements and utility. It is the man who can solve a problem in construction, or who can introduce labor-saving systems, design dwellings for the laboring class on the smallest area and at the lowest rate per foot of floor area, or who can design a hotel with the latest equipments for convenience and safety, that is really the architect in the modern sense of the word. Art is relegated to a subordinate place in the economy of building; it has become an impersonal factor in the design in the majority of buildings. The conditions we have mentioned of health, safety and comfort have now become the test of good construction. The architect cannot do his work effectively under the conditions of the twentieth century, if he is bound by the rules of the eighteenth and nineteenth centuries. The conditions that then prevailed set forth academic principles in design; the more correctly a building followed certain rules and orders, the better it was considered. Our old eighteenth-century houses were certainly well built and comfortable, and in these respects contrast very strongly with the average dwellings of the present day. But the comfort and cosiness of the old-fashioned town or country house did not always imply healthfulness. The substantial builders of those days had a fondness for burying their houses, sinking them in the ground, whereas we are taught by modern hygiene to raise a building as much as possible, so that the basement (if there is one) should be half out of the ground, if not an open story, as the late Dr. Richardson proposed in his ideal city, so as practically to cut off or isolate the house proper from the soil. Then, again, the old builder was a believer in low-pitched rooms and easy-stair risers, while the modern hygienic rule is to increase the height of both living and sleeping rooms even at the cost of bad proportions. Added to this the old-fashioned small windows, the thick solid walls, internal sanitary conveniences, and we can begin to realize how comfort was purchased. So that the idea of comfort did not connote health at that date, if it meant, as it often does even now, a sort of stuffy atmosphere with no open windows, but a good open fire, and plenty of convenient seats. We now put health before comfort—a word scarcely known (scientifically we mean) in connection with architecture a hundred years ago. For hygienic sanitary science has largely modified our conception of building and construction. Its salutary rules have to be kept in mind in the planning of our dwellings and public buildings, so as to insure the right position for sanitary fixtures, sufficient light areas or wells in large public buildings, and in the disposition of rooms and fittings. In sections the same rules have to be observed in the drawing of walls and floors, in the provision for warm-air chambers, cold-air inlets and vitiated-air outlets and flues. Much of the architect's time and study have now to be devoted to details of heating and ventilating systems, hot and cold water supply, ventilation of drains for which detail drawings and specifications are required, etc. These are reflections that show how hygienic requirements have taken the place of the earlier and academic ideal. The architect has to take his place as a sanitary constructor, and must be equipped with the requisite knowledge. This is to him a part of the obligation he owes to his client.

The condition of safety—another essential—imposes upon the architect a thorough knowledge of construction, methods and materials; here again the whole trend of thought and inventiveness has been widened since our forefathers built, and it would be impossible to do more than touch on a few subjects. All can remember when construction was limited to foundations, walls, floors and roofs; and these were confined to methods and materials of the commonest description determined by a few traditional rules. There were no mechanical, hydraulic or pneumatic appliances for removing soils in wet substrata; cofferdams were of the simplest kind; caissons and air-locks and pumping machinery had not come into general use; whereas now iron and concrete, pneumatic contrivances for enabling workmen under water to be provided with compressed air, compressed air-jets, drills and other modes of excavation are employed. In wall construction brick and stone or granite were the only material. Now the architect has at his service concrete, iron and steel; various methods of building walls of cellular construction. Floors of timber have been superseded by those of iron and concrete, fire-clay and rolled joists in various combinations. In fact, all the simple and older materials, like stone and brick and timber, have passed into new combinations, so that the architect has now to disengage his mind from what has been done in the past and master the conditions of newer methods. He cannot persist in using the older modes; if he did, he would be overtaken by the engineer. Materials are treated more scientifically than formerly. Our forefathers possessed sound principles of mechanics, and, directed by common sense, determined the thickness of their walls and floors; the modern theorist has gone further: he has analyzed the forces of weight and pressure, loads and reaction, moments of bending and resistance, and these he can plot in diagrams and measure the stresses graphically. Although analysis has not been favorable to art nor to poetic composition, as Macaulay has said, it has been conducive to

(Continued page 143.)



PLAN, A COLONIAL INSTITUTE. BEAUX ARTS SCHOLARSHIP COMPETITION.
Second Prize, W. D. Crowell, Atelier Depradelle.

(Continued from page 141.)

economy. Our old buildings were massive, there was no thought of materials, but now we build walls as thin as it is safe for them to be built; with the object of saving area as well as material. Thickness and bulk in walls and floors were the visible signs of strength; but now we know that stresses are set up by pressure or weight, we have learned how to strengthen or "reinforce" those portions only which need it, and so it is that economy has come to be regarded as the outcome of science. So that we have to face an entirely different conception of construction. Even our walls and floors have become more organized structures. We endow the homogeneous mass with muscles and sinews, so to speak, to resist strain; we build walls that will resist moisture, and by means of cellular construction and the introduction of certain substances, can render them non-conductive of heat and cold, and non-transmissive of sound. All this added to the architect's requirements, has made building more complex and costly. Examples of this modern science applied to construction are seen all round; the many forms of patented fireproof partitions, fire-resisting floors, roofs, staircases, elevators, modes of introducing daylight into our basements and dark city offices by the aid of refracting lenses or prisms, ventilating and heating appliances, and the numerous special fittings call for an extended knowledge of mechanical, physical, chemical and technical subjects. The safety of buildings has a much wider meaning than it once had: it does not mean only security against bad foundations, collapse through bad construction, but protection against dampness, flooded basements, against fire and panic by means of fire-resisting material and means of escape; against the inroads of disease through bad drainage, and protection against various insidious dangers such as spontaneous combustion, explosion and the like, which all kinds of buildings for storage are liable to. The public, and indeed the average householder or custodian of premises, have very vague and faint ideas of these matters, but the architect ought to be acquainted with them.

The Society of Beaux Arts Architects

INCORPORATED 1894.

S. B. P. TROWBRIDGE,
President.

WHITNEY WARREN,
Vice-President.

A. A. STOUGHTON,
96 5th Ave.,
Secretary.

JOSEPH H. HUNT,
Treasurer.

LLOYD WARREN,
3 E. 33d St.
Chairman Committee on Education.

OFFICIAL ORGAN - - ARCHITECTURE.

REPORT OF JURY IN THE JUDGMENT OF AUGUST 3, 1904.

Jurors present—Messrs. Lord, Masqueray, Chappell and Lloyd Warren.

CLASS A—ESQUISSE-ESQUISSE.

A MONUMENTAL CLOCK.

Harris, A. L.	Washington	Atelier Pietsch	II Mention

CLASS B—PLAN PROBLEM.

A RAILROAD STATION.

DeHari, Walter	New York	Atelier Hornbostel	II Mention
Dawson, Harold	New York	Atelier Ewing & Chappell	II Mention
Puckey, F. W.	New York	Atelier Barber	I Mention

CLASS B—ORDER PROBLEM.

THE ENTRANCE TO A FORTIFICATION.

Elliott, M. L.	New York	——	Mention
Flanagan, G. A.	New York	Atelier Hornbostel	Mention
Hart, R. E.	New York	Atelier Perkins	Mention
Jonck, F.	New York	Atelier Hornbostel	Hors Coucours
Muller, B. E.	New York	Atelier Hornbostel	Mention
Puls, C. H.	New York	Atelier Almirall	Mention
Thompson, J. F.	New York	Atelier Hornbostel	Mention, ranked 2d
VanAlen, W M.	New York	Atelser Barber	Mention, ranked 1st
Warrin, R. H.	New York	Atelier Barber	Hors Concours
Vanderbilt, J. V.	Rochester	Atelier Bragdon	Mention
Sibley, Ernest	Des Moines, Ia.	Atelier Proudfoot	Mention

LLOYD WARREN,
Chairman Committee on Education.

CLASS A—PLAN PROBLEM.

A THEOLOGICAL SEMINARY.

A Theological Seminary differs from many institutions for professional education in requiring no elaborate system of scientific laboratories, while the chapel is, on the other hand, of special importance. In general, also, the number of students to be accommodated is smaller than in most other professional schools.

The school which forms the subject of this problem is supposed to be located in the suburbs, upon a plot of ground measuring 400 by 600 feet, with a broad avenue along the 400 foot front, and streets on the two sides. The rear line is upon a private alley or road, reserved for the service of the seminary. The front faces the south, and there is a gradual slope downward of about 15 feet from the rear to the front.

Chapel, to seat 500 to 600, without galleries; with either a deep channel for liturgical worship, or spacious apse for the clergy; a large organ is essential. This is to be a spacious chapel, for the more important services, and to have a vestry, study, etc., connected with it.

A small chapel, seating 250, for morning prayers, etc.

Refectory, to seat 250 to 300 at table, with all necessary appurtenances—kitchens, serving rooms, one or two private dining rooms, etc.

Library, for about 20,000 volumes, with from 4 to 8 studies or "seminars" adjoining it. To have open shelves or alcoves, whether with or without a stackroom.

Museum, with a series of rooms for various collections illustrating missions, comparative religion, ethnology, ecclesiastical art, etc.; or one large and lofty room with alcoves for these various sections.

Gymnasium, forming a wing or a detached building, with baths, lockers, Director's office, etc.

Large Lecture Hall, or amphitheatre, to seat 1,000.

Two Smaller Lecture Rooms.

Eight Class Rooms, seating 40 each, with Professor's study adjoining each.

Reception Room and two or three Society Rooms for debates, etc.

Rooms for about 200 students, allowing study and small bedroom for three students.

Residence for Dean or President.

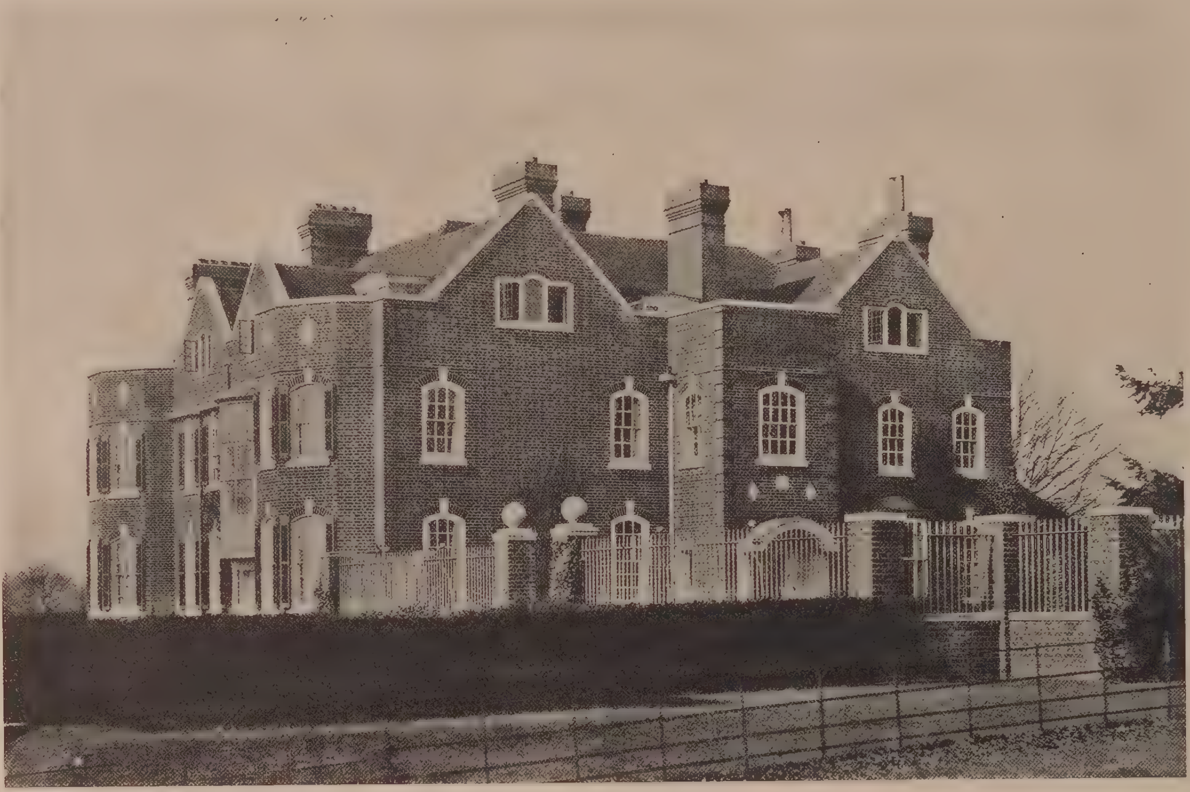
Eight Houses or apartments for Professors.

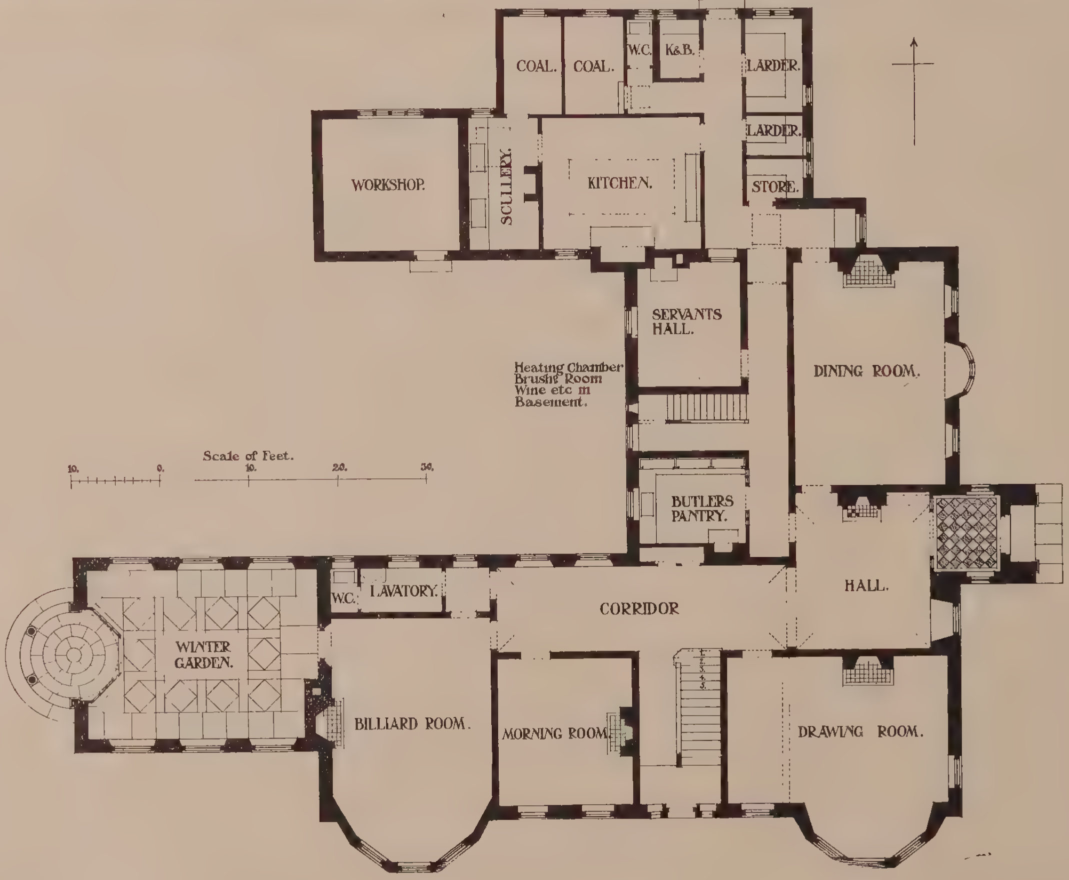
Power Plant in power house, or it may be supposed to be in basement of gymnasium.

All necessary accessories, toilet rooms, etc., campanile, spire or clock tower, and porter's lodge, are at designer's discretion.

The plan of the grounds must provide for athletic field and grand stand, tennis courts and garden.

(Continued page 146.)





A HOUSE IN SURREY, ENGLAND.

Ernest Newton, Architect.

AMERICAN AND ENGLISH BUILDING METHODS.

COMPARING the English and American methods in the erection of buildings, Mr. Charles Heathcote, architect, of Manchester, England, drew a few instructive lessons in his lecture, recently given before the Society of Arts. It was addressed to the Institute of Builders, and therefore the author confined his attention to the practical side of the subject. First of all, the lecturer spoke of the claim made by and for our American cousins, that of speed. We have several times spoken of acceleration of work, or speed, as hurry. As Mr. Heathcote remarks, all other things being equal, it has an exaggerated value. The English builder never boasts of his speed. All he cares for is efficiency, and, although he uses many methods for quickening the progress of his building, he rarely ever thinks speed worth putting on the same level as honest and good workmanship. A summary is given of the factors which make for rapid progress, in which a few points of comparison are noticed. There is one indictment against the English builder which has some truth in it: he is not always in earnest with his work, and it is certainly more true of him that pleasure often comes before business, whereas with the American, business comes first. Secondly, it is stated that the American architect is more alive to "rapid completion of the drawings and details of the approved scheme;" he also so arranges his construction as to promote rapid execution. "Coupling up steel stanchions tends to more rapid progress than endeavoring to provide polished granite from a Scotch quarry in winter." Thirdly, and it is quite true that early completion of drawings and details assists the contractor to organize his work as soon as possible, and this factor of progress is very often neglected in English work. The architect likes to take his time in preparing the contract drawings and details; he prefers to keep them back, with the object of giving them more consideration—a very good motive, but one which is prejudicial to the contractor's interest; whereas if the drawings and details were taken in hand earlier, or the contract postponed till they were ready, it would be a decided advantage to the builder, and the architect would obtain the extra time he required. American architects work early and late, and employ assistance to help them complete their drawings and specifications; and the contractor spends more time in looking after the labor, and on overtime, on getting materials early. They do so because the American proprietor appreciates the importance of early completion, as meaning money to him. He does not hesitate to pay extra architect's and contractor's fees for this pecuniary advantage. Why should he? The English building owner, it must be confessed, is rather less practical and far-seeing; he makes up his mind slowly, hesitates about the design, and after he has made up his mind, he is in a great hurry to commence the work. The architect has little time to make his contract drawings complete, and hastens to have the main drawings and specifications prepared for the quantities. The American employer "values more the power of work in his employes than the amount of minimum wage," and if he can save time, will not begrudge the expense of obtaining the latest hoisting and labor-saving machinery. Then the workingman takes the view, often exaggerated, that the more cheaply and speedily a thing can be produced through economizing labor, the better it is for the trade. The American employer pays better wages to the men employed on labor-saving machinery, and this advances wages and finds more employment.

The American likes work and application to business; his training commences early, and is based on technical or business qualifications, instead of merely academic acquirements, as with us. Technical education is more valued than Greek or Latin. The interest of the youth is from the first bent on his business pursuit, and he thus takes more interest in his work, which is paid for according to his ability and skill. American industries and building are promoted by protection. The wages of all building operatives are high and home productions increased in the same proportion.—*London Building News.*

THE Private Branch Exchange System of supplying TELEPHONE SERVICE is particularly adapted to the requirements of LARGE HOTELS and APARTMENT HOUSES.

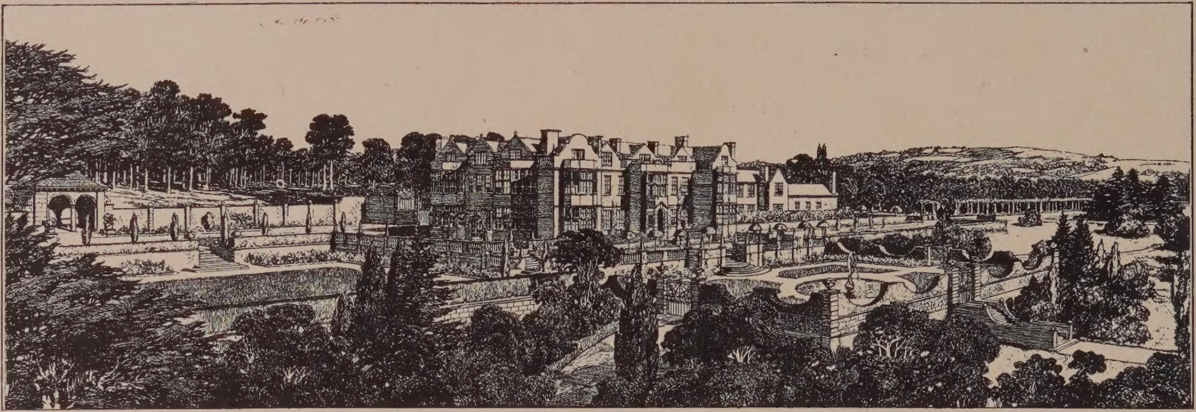
By means of a Private Branch Exchange the general telephone service, local, suburban and long distance, is available in every room and apartment. A complete interior service is also supplied, adding largely to the efficiency and decreasing the cost of the hotel service proper. No modern Hotel or Apartment House should lack a

Private Branch Telephone Exchange.

Full information on request at any of the Contract Offices:

15 Dey St. 111 West 38th St. 220 West 124th St.

NEW YORK TELEPHONE CO.



DESIGN FOR AN ENGLISH COUNTRY HOUSE AND GROUNDS. Edmund Fisher, Architect.

(Continued from page 143.)

Required for Sketch.—General block plan of grounds and buildings to $\frac{1}{64}$ inch scale.

Elevation of central building, or central part of principal range of buildings, to $\frac{1}{16}$ inch scale.

The sketch must be done in ink.

Required for Rendered Drawings.—General plan of grounds and buildings to the $\frac{1}{16}$ inch scale. In this, the houses (if any) may be outlined in block plan, but the academic buildings must be fully presented and the principal rooms lettered upon them.

Two elevations of principal ranges of buildings to the ⅛ inch scale. These elevations should be taken at right angles to each other.

Section of chapel from front to rear to the ⅛ inch scale.

(Signed) A. D. F. Hamlin,
W. A. Delano.

Lloyd Warren,
Chairman Committee on Education.

CLASS A—ESQUISSE-ESQUISSE.

A MONUMENTAL CLOCK.

This clock, surmounted by a canopy and surrounded by decorative treatment, would be applied to the shaft of a lofty tower, such as the Madison Square Tower, at a height of about 70 feet from the ground. The dial should be 8 feet in diameter.

The Drawing should be an elevation at ½ inch scale of the clock and its decoration only, without showing the tower.

Lloyd Warren,
Chairman Committee on Education.

CLASS B—PLAN PROBLEM.

A RAILROAD STATION.

This shall be the railroad station of a cottage community such as Tuxedo Park, situated in the hills of New York, and so designed as to harmonize with its picturesque surroundings.

It shall consist of:

A waiting room, with women's toilet room adjoining.

Men's smoking room, with toilet room adjoining.

Ticket office, with telegraph.

Telephone booth.

Baggage room and express office.

A covered driveway.

A covered platform for both tracks, connected by an underground passage.

A small luncheon restaurant.

On the second floor there will be an apartment for the station master and his family.

The site will be on a level plot.

The general waiting room will be about 1,000 square feet in area, and the other rooms in the station should be designed in proportion.

For the esquisse give:

A ground plan and cross section at $\frac{1}{16}$ inch scale.

The facade on the street at ⅛ inch scale.

The esquisse must be done in ink.

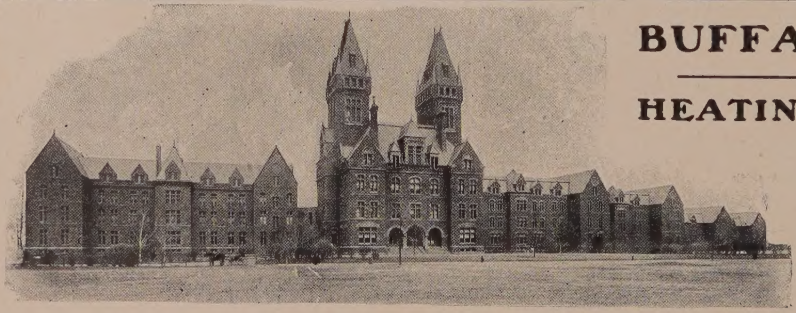
For the rendu give:

Plan and section at ⅛ inch scale.

Elevation at ¼ inch scale.

Lloyd Warren,
Chairman Committee on Education.

(Continued page 148.)



Buffalo State Insane Hospital, Buffalo, N. Y.
BUILDINGS USING BUFFALO FAN SYSTEM OF HEATING AND VENTILATING

BUFFALO FAN SYSTEM
OF
HEATING and VENTILATING

Pure Air. Temperature
Humidity and Quantity
Always Right

Apparatus Centrally Located

Catalogs, Estimates and Plans Cheerfully Furnished

BUFFALO FORGE CO., New York City, N. Y. Buffalo, N. Y.

We have two big plants, one in Philadelphia and another in the Cumberland Mountains, where we make "Taylor Old Style" roofing tin just as well as it can be made. These are two great monuments to one thing well done.

N. & G. Taylor Co.
Established 1810
PHILADELPHIA

"Rufus the Roofer" is a breezy booklet, in which the roof question is threshed out in a new vein. It will be sent to any one on receipt of ten cents in stamps, and is worth more than that simply as entertaining reading.

THE ONLY

FIRE PROOF WINDOW

Made of

Real Polished Plate Glass

Is the

Luxfer Fire Proof Window

GLAZED WITH

Electroglazed Plate Glass

Send for circulars

AMERICAN LUXFER PRISM CO.
160 FIFTH AVENUE · · NEW YORK

The Barrett Specification

FELT, Pitch, and Slag or Gravel Roofs, laid according to The Barrett Specification, have innumerable points of superiority over Tin or Metal Roofs of any kind. We mention a few of them:

Slag and Gravel Roofs require no repairs—no tinkering—no painting. An absolute ten years' guarantee is given with every one.

They cannot rust. The under side is as durable as the top.

They are not affected by climatic changes, steam or acid fumes, and are recognized by fire underwriters as a standard retardent.

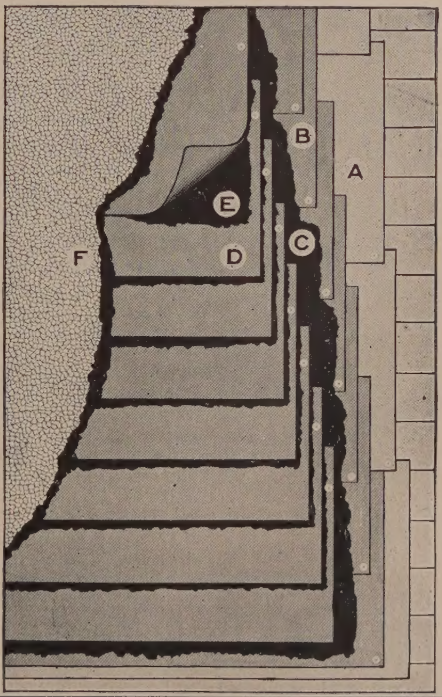
The initial cost is less, and, owing to the absence of expense for repairs or painting, the comparative cost grows less year after year.

In fact, they will last longer, wear better and give more satisfaction to the square inch, for less money, than any other known roofing.

Booklet covering the entire Roofing subject free on application

Barrett Manufacturing Co. NEW YORK

Chicago Cleveland New Orleans Allegheny Kansas City
Philadelphia Cincinnati St. Louis Minneapolis



(Continued from page 146.)

CLASS B—ORDER PROBLEM.

THE ENTRANCE TO A FORTIFICATION.

This would be a monumental portal applied to a wall of rough masonry giving access to the fortification of a stronghold and should have the character of military architecture.

A moat surrounds this fortification which must be spanned by a bridge leading to the portal, which shall be flanked on both sides by an appropriate treatment of the orders, surmounted by a commemorative tablet, or the arms of the city, or some ornamental motive of proper character.

The entrance shall be a driveway 15 feet wide and 15 feet deep, with a vaulted ceiling.

The student is referred to the similar portals executed at Verona, Bergamo, Genoa and Venice.

For the esquisse give a plan section and elevation at $\frac{1}{16}$ inch scale.

The esquisse must be done in ink.

For the rendu give an elevation at a large enough scale to fill a double elephant sheet, allowing 3 inches all around for a border; also a plan and section at $\frac{1}{8}$ inch scale.

LLOYD WARREN,
Chairman Committee on Education.

IN the August issue we presented the winning drawings in the Beaux Arts Scholarship Competition, won by Mr. G. A. Licht. The title, "A Central Entrance Motive for a Court of Honor," was an error, the correct title being, "A Colonial Institute."

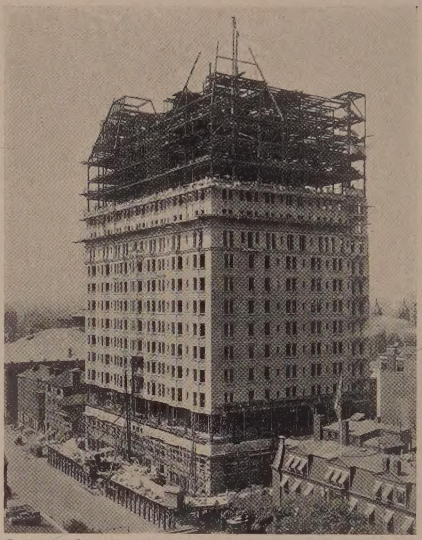
BOOK REVIEWS.

FIRE INSURANCE AND HOW TO BUILD. 1903. Francis C. Moore. The Baker & Taylor Company, New York. $5.00.

While the object of this treatise appears to be primarily for the benefit of the insurance interests, the fact remains that most points of instruction and information therein contained, may be employed by the architect for the protection and profit of his client. It is not enough that the architect shall give to the owner a building that fulfills the requirements of art and municipal regulations, but a great measure of its success as a commercial enterprise depends upon the advantages of a low rate in regular operating expense. Of this expense, the insurance premium is no small consideration. The architect must carry the weight of responsibility for all conflict between the owner and the fire underwriter in cases where the construction or materials are not in accordance with the conditions under which the insurance company would enter the building as a "good risk." We quote: "It is probable that few subjects connected with construction are generally misunderstood than this of fireproof building. The average individual regards iron and stone as fireproof. He, at the same time, overlooks the fact that glass windows are not fire-resisting. An ideal fireproof building would be one consisting of substantial walls of brick, well burned brick being a better fire resistant than any other material; with all ironwork protected with fireproof material; with all floors properly cut off from each other; the staircases and elevators in hallways; and all passages from one floor to another so cut off at each story that a fire could not go from one story to another; the floors themselves being fireproof, without floor boards, the surface being of concrete or asphalt, and inclined, with scuppers through the side walls so arranged as to drain off any water which might be thrown by a fire department, and protect the floors and merchandise beneath the one on fire."

TRADE CATALOGUES WANTED.

WILLIAM P. ERISMAN and S. H. B. MERCER, Architects, have formed a partnership, with offices in the Woolworth Building, Lancaster, Pa. Messrs. Erisman & Mercer will appreciate catalogues and samples from the trade.



Bellevue Stratford Hotel, Philadelphia.

"Superior Graphite Paint"

Protects the structural steel in this building.
It is durable and prevents rust.
It is specified by leading architects and engineers.
Send for color cards, booklet and pamphlet on Protective Painting.

New York
Boston
Chicago

DETROIT GRAPHITE MFG. CO.
DETROIT, MICH.

Buffalo
Cleveland
St. Louis

LIGNI-SALVOR

STABLE OF C. B. ALEXANDER, TUXEDO PARK, N. Y.
Office of James Brown Lord; Chas. Volz, Architect.

LIGNI-SALVOR, Best Wood Preserver, is of a bright nut brown color, which is very attractive, and produces a decidedly agreeable effect. It soaks into the wood readily, leaves the pores open, permitting no dry rot to occur, as is the case where paint or similar substances are used. It prevents rot or decay in wood exposed to moisture or climatic changes and lengthens the life of the wood. Combining serviceability and beauty, it is largely specified by leading architects on private dwellings, churches, posts, porches, half timber work, shingles, verandahs, railroad depots and sheds, hospitals, stables, boathouses and wooden structures of all kinds and descriptions. Wood to be preserved can either be dipped or soaked in it (shingles, etc.) or it may be applied with an ordinary paint brush, same as paint. It should be applied *thoroughly*—from 2 to 3 coats are recommended. Covering capacity per gallon, about 300 to 350 square feet of dressed lumber.

For samples and further particulars apply to

WILLIAM MENZEL & SON, SOLE AGENTS
Also Eastern Agents for E. & S. MARBLE ENAMEL PAINT
and E. & S. COMPOUND ELASTIC IRON PAINT.
68 Broad Street, NEW YORK.